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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,259	07/18/2006	Peter Edward Burton	06097	8421

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DENNISON, SCHULTZ & MACDONALD
1727 KING STREET
SUITE 105
ALEXANDRIA, VA 22314

EXAMINER

O HERN, BRENT T

ART UNIT	PAPER NUMBER
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1794

MAIL DATE	DELIVERY MODE
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03/17/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/597,259	Applicant(s) BURTON ET AL.	
	Examiner Brent T. O'Hern	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/16/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims

1. Claims 1-10 are pending.

WITHDRAWN REJECTIONS

2. All rejections of record in the Office action mailed 24 July 2008, pages 2-4, paragraphs 3-4 have been withdrawn due to Applicant's amendments in the Paper filed 16 January 2009.

NEW REJECTIONS

Claim Rejections - 35 USC § 103

3. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaner et al. (US 4,361,612) in view of Liu et al. (US 2003/0064230) with evidence by Vinden et al. (US 2003/0189039).

Shaner ('612) teaches an oriented strand board made of hard wood strands with a binder including a phenolic resin and wax with the length of the strands being up to 8 inches (203 mm), up to 2 inches (51 mm) wide and a thickness from 0.010 to 0.100 inches (0.254 to 2.54 mm) and a density of 40 to 50 lb/ft³ (641-801 kg/m³) (See *Abstract, col. 3, l. 56 to col. 4, l. 12 and col. 6, ll. 45-63.*), however fails to expressly disclose the hard wood being eucalypts or eucalypts selected from the species such as Bluegum (E. Globulus), Karri (E. Diversicolor), Sydney Bluegum (E. Saligna), Marri (E. Calophylla) or Jarrah (E. Marginata), at least 70% of the strands being fully aligned and having a modulus of elasticity of $\geq 14,000$ N/mm² and the resin being apolymeric di-isocyanate resin.

However, eucalypts are known hard woods (*See as evidence para. 9 of Vinden ('039).*) and it would have been obvious to a person having ordinary skill in the art at the time Applicant's invention was made to substitute eucalypt strands for other hard wood strands based on availability of supply for the purpose of providing a strong strand board. Furthermore, the inherent properties of the strands clearly transfer over to the composite product.

Furthermore, Shaner ('612) teaches that the modulus of elasticity can be varied by changing the alignment and dimensions of the strands, composition of the board and processing conditions for the purpose of providing a strong effective board (*See col. 4, ll. 1-34.*).

Liu ('230) teaches using binders such as methane di-isocyanate resin and wax to bind oriented hard wood strand boards (*See paras. 16-18 and 23.*) for the purpose of providing strong boards that are water resistant (*See paras. 18 and 23.*).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to use hardwood eucalypt strands instead of other hardwood strands with the di-isocyanate resin as taught by Liu ('230) in Shaner ('612) and through routine optimization to vary the composition and processing conditions in order to provide a strong water resistant effective board.

ANSWERS TO APPLICANT'S ARGUMENTS

4. The declaration under 37 CFR 1.132 filed by Peter Edward Burton is insufficient to overcome the rejection of claim 3 based upon Shaner et al. (US 4,361,612) with evidence by Vinden et al. (US 2003/0189039) in view of Liu et al. (US 2003/0064230)

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as set forth in the last Office action because: Liu ('230) is not cited as teaching Applicant's invention but rather using the resin as taught by Liu ('230) in Shaner ('612). Applicant's representative makes substantially the same arguments as Declarant, thus, the arguments are addressed together in the interest of avoiding repetition. The Declaration and supporting evidence have been fully considered.

5. In response to Applicant's arguments (*p. 5, paras. 2-4 of Applicant's Paper filed 16 December 2008*) regarding Shaner ('612) and the resin, it is firstly noted that Applicant has amended independent claim #1 by deleting the phenolic resin limitation, thus, Applicant's arguments regarding such are moot.

6. Isocyanate and phenolic resins are interpreted as admissions by Applicant as alternatives for bonding strands in boards as disclosed on page 2, lines 1-3 and claim 1 of Applicant's original filed application.

7. In response to Applicant's arguments (*p. 5, para. 2 of Applicant's Paper filed 16 December 2008*) that isocyanate resins are not suitable for forming laminates because said resin bonds to presses, it is noted that Liu ('230) does not teach against using said resin and there are numerous references that teach using said resin including Clarke et al. (US 5,25,394) at col. 6, ll. 32-43. Thus, this type of resin is a common resin in the wood strand art for bonding strands in boards.

8. In response to Applicant's arguments (*p. 6, para. 1 of Applicant's Paper filed 16 December 2008*) that eucalypts do not bond with phenolic resin in the manner as disclosed in Shaner ('612), it is firstly noted as discussed above that Applicant discloses phenolic and isocyanate as alternatives. Furthermore, the current rejection does not

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assert that only Shaner ('612) teaches amended claim #1 but rather using the isocyanate resin as taught by Liu ('230).

9. In response to Applicant's arguments (*p. 6, paras. 2-3 of Applicant's Paper filed 16 December 2008*) that the fire retardant compounds of Liu ('230) would weaken the product and not provide the desired modulus of elasticity, it is noted that the Examiner does not assert incorporating fire retardant compounds into Shaner ('612) but rather substituting the resin, thus, Applicant's arguments are beyond the issue under review.

10. In response to Applicant's arguments (*p. 6, para. 4 to p. 7, para. 5 of Applicant's Paper and p. 2, paras. 2-3 of Applicant's Declaration filed 16 December 2008*) that utilizing eucalypts and isocyanate resins provide a product with unexpected results, thus, it would not have been obvious to substitute eucalypts for other hardwoods and Applicant's product has better properties than Liu's ('230) product, it is firstly noted that the Examiner does not state that Liu ('230) teaches Applicant's claims but rather Shaner's ('612) product as modified by the resin of Liu ('230) and the teachings of the prior art. Furthermore, Applicant does not present any evidence that Shaner ('612) as modified by the prior would be unsuitable for its intended purpose. Additionally, all hardwoods are not exactly the same, thus, it would have been obvious that said woods do not have identical properties.

11. In response to Applicant's arguments (*p. 7, para. 5 of Applicant's Paper and p. 1, para. 6 of Applicant's Declaration filed 16 December 2008*) that since the cure time with isocyanate is less than with phenolic resins it would not have been obvious to substitute one for another, it is firstly noted that there is not anything unexpected about different

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resins having different cure times since they are different. Furthermore, having a shorter cure time is actually advantageous and is an additional motivation for using Liu's ('230) resin. If the cure time was slower then the argument would be stronger.

12. In response to Applicant's arguments (*p. 7, para. 6 to p. 8, para. 2 of Applicant's Paper and p. 2, para. 4 of Applicant's Declaration filed 16 December 2008*) that since eucalypts with isocyanate have a low swell it would not have been obvious to use said materials in a board, it is firstly noted that Applicant does not present any particular swell limitation in the claims. Furthermore, Applicant does not present any evidence why one would not use eucalypts but rather provides further arguments why one would use eucalypts.

13. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent T. O'Hern whose telephone number is (571)272-0496. The examiner can normally be reached on Monday-Thursday, 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BTO/
Brent T. O'Hern
Examiner
Art Unit 1794
March 6, 2009

/Elizabeth M. Cole/
Primary Examiner, Art Unit 1794